

PATENT
Reply under 37 CFR 1.116
EXPEDITED PROCEDURE
Group 1731

AMENDMENT(S) TO THE DRAWINGS

Please amend Figs. 9-16 as indicated in red on the attached annotated marked-up drawing.
A replacement sheet presenting replacement figures which incorporate the desired changes is also enclosed.

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REMARKS

Claims 1-146 are pending in this application. Claims 1-30 and 89-146 are withdrawn.
Claims 31-88 are rejected. Claim 47 is canceled hereby.

Responsive to the objection to the information disclosure statement, an information disclosure statement is herewith provided with a copy of DE 197 06 940 A1 and DE 40 05 420 A1.

Responsive to the objection to the specification at paragraph 3 of the Office Action, an information disclosure statement is herewith provided with a copy of DE 197 06 940 A1 and DE 40 05 420 A1, and English translations of the same documents have been ordered and will be filed with the USPTO when the translations are received. Further, the specification has been amended to correctly recite DE 40 05 420 A1 as one of the reference documents instead of E 40 05 420 A1. Applicant respectfully submits that the specification is in allowable form.

Responsive to the objection to the specification at paragraph 4 of the Office Action, and regarding the term SCT, Applicant respectfully submits that this term stands for Short Span Compression Test as defined on page 1, line 14 of the present application as filed. Regarding the term FbM, Applicant has amended the specification to indicate that this term stands for mass per unit area of the fiber web as indicated by Figs. 10-16 of the present application as filed. Regarding the term RL, Applicant respectfully submits that the Applicant is allowed to be their own lexicographer and has defined the term RL to stand for tear length. Applicant may be his own lexicographer as long as the meaning assigned to the term is not repugnant to the term's well known usage (MPEP 2111.01). As the Examiner has not suggested a more well known usage, Applicant respectfully submits that the term RL is acceptable. Applicant respectfully submits that the specification is in allowable form.

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Responsive to the objection to the specification at paragraph 5 of the Office Action regarding the phrase "the angle of attack of the dewatering", Applicant has amended the specification keeping in mind the comments of the Examiner and consistent with Figs. 3a-3d of the present application as filed. Applicant respectfully submits that the specification is in allowable form.

Responsive to the objection to the specification at paragraph 6 of the Office Action regarding the phrase "the effective foil angle" recited on page 10 of the present application as filed, Applicant respectfully submits that distortable foil strips can also be utilized, which may have either a soft deformation-permitting material or may be sectioned across the width, and an intervention is possible in this instance by adjusting the effective foil angle, whereby typical values are in a range of 0° to approximately 4°. Applicant respectfully submits that the specification is in allowable form.

Responsive to the objection to the drawings at paragraph 7 of the Office Action, Applicant has amended Figs. 9-16 keeping in mind the comments of the Examiner. Further, Applicant respectfully directs the Examiner's attention to the Submission of Formal Drawings filed June 3, 2004, and the amendment filed April 7, 2005, wherein all foreign language descriptions in the other Figures were substituted with English language descriptions. In Fig. 16, KM stands for kilometer, as is commonly understood. Applicant respectfully submits that the drawings are in allowable form.

Responsive to the objection to the drawings at paragraph 8 of the Office Action, Applicant has amended the specification keeping in mind the comments of the Examiner. Applicant respectfully submits that the drawings are in allowable form.

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Responsive to the rejection of claims 47, 62 and 84-88 under 35 U.S.C. § 112, second paragraph, as being indefinite, Applicant has canceled claim 47, amended the specification, and attached a copy (see Attachment A) of the website cited in the amendment filed April 7, 2005 keeping in mind the comments of the Examiner. More specifically, regarding claim 47, Applicant has canceled claim 47. Regarding claim 62, Applicant has amended the specification at the paragraph beginning on page 9, line 17, keeping in mind the comments of the Examiner. Regarding claims 84-88, Applicant has attached a copy (see Attachment A) of the website cited in the amendment filed April 7, 2005 keeping in mind the comments of the Examiner. For all of the foregoing reasons, Applicant respectfully submits that claims 47, 62 and 84-88 are in allowable form.

Responsive to the rejection of claims 31-47, 53, 54, 62-65 and 67-76 under 35 U.S.C. § 102(b) as being anticipated by Austrian Patent No. AT 355 412 (Rauchmaul), Applicant respectfully traverses this rejection, and has canceled claim 47, and submits that claims 31-46, 53, 54, 62-65 and 67-76 are now in condition for allowance.

Rauchmaul '412 discloses suction box 10 (Figs. 1-2) which has screen plate 16 with wire holes 40 and wire slots 41. By way of snifter valve 44, the required optimal negative pressure head in suction box 10 can be adjusted (page 7). In the frontal surfaces 17, 18 of suction box 10 there are provided openings 19 in the bottom area, in the area of which openings, easily detachable tube flanges 24, 25 are arranged which possess flanges 28 and tube sockets 29 (page 11).

In contrast, claim 31 recites in part: "... producing at least one zonal pressure gradient in the fibrous suspension during said dewatering step; and influencing a main fiber direction in the fiber material web." (Emphasis added). Applicant submits that such an invention is neither

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taught, disclosed or suggested by Rauchmaul '412, or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Rauchmaul '412 discloses a suction box with wire holes and wire slots. Rauchmaul '412 fails to disclose or suggest at least the steps of producing at least one zonal pressure gradient in the fibrous suspension during the dewatering step, and influencing a main fiber direction in the fiber material web as claimed in independent claim 31. To anticipate a claim, the reference must teach every element of the claim (MPEP 2131), and as Rauchmaul '412 is completely silent regarding at least the steps of producing at least one zonal pressure gradient in the fibrous suspension during the dewatering step, and influencing a main fiber direction in the fiber material web as claimed in independent claim 31 of the present application, Rauchmaul '412 does not therefore anticipate the present invention as claimed. Further, the Examiner indicated in the restriction requirement issued October 22, 2004 that the invention of claims 31-88 (method) of the present application and the invention of claims 89-146 (device) of the present application, while related, are distinct because the device can be used to practice a materially different process. Therefore, the structure of the present invention, or of Rauchmaul '412, cannot be said to inherently disclose the method of claims 31-88.

An advantage of the present invention is that the main fiber direction in the fiber material web is influenced thereby improving the characteristics of the fiber material web.

For all of the foregoing reasons, Applicant submits that claim 31, and claims 32-46, 53, 54, 62-65 and 67-76 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Responsive to the rejection of claims 48-52, 55-61, 66 and 77-88 under 35 U.S.C. § 103(a) as being obvious by Austrian Patent No. AT 355 412 (Rauchmaul), Applicant respectfully

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traverses this rejection and submits that claims 48-52, 55-61, 66 and 77-88 are now in condition for allowance. Claims 48-52, 55-61, 66 and 77-88 are dependent upon claim 31 which is distinguished from Rauchmaul '412 as described above; therefore any dependent claims, including claims 48-52, 55-61, 66 and 77-88, are distinguished from Rauchmaul '41.

For all of the foregoing reasons, Applicant submits that claim 31, and claims 48-52, 55-61, 66 and 77-88 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

It is further submitted that the requested amendments to the claims, submitted after the Office Action designated as Final, should be entered, in that the amendment will place all remaining claims in condition for allowance. Further, the requested amendments to the claims simplify the issues for a potential appeal by reducing the number of claims under consideration and clarifying the claimed structure.

For the foregoing reasons, Applicant submits that the pending claims are definite and do particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Moreover, Applicant submits that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicant respectfully requests withdrawal of all rejections and allowance of the claims.

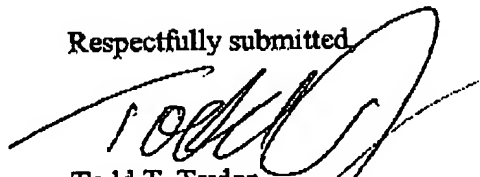
In the event Applicant has overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicant hereby conditionally petitions therefor and authorizes that any charges be made to Deposit Account No. 20-0095,
TAYLOR & AUST, P.C.

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Should any question concerning any of the foregoing arise, the Examiner is invited to
telephone the undersigned at (260) 897-3400.

Respectfully submitted,



Todd T. Taylor
Registration No. 36,945

Attorney for Applicant

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being transmitted via
facsimile to the U.S. Patent and Trademark Office, on: August 2, 2005

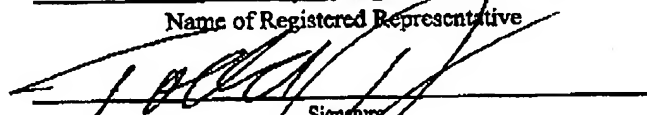
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Name of Registered Representative



Signature

August 2, 2005

Date

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Annotated Marked-UP Drawings

FIG. 8

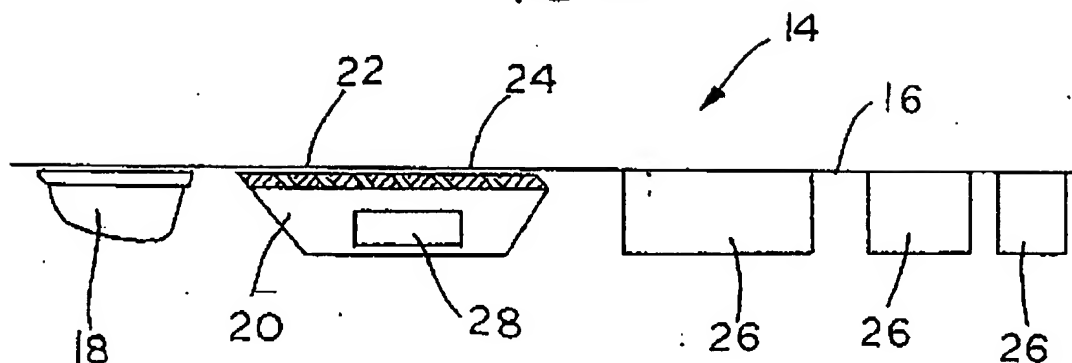
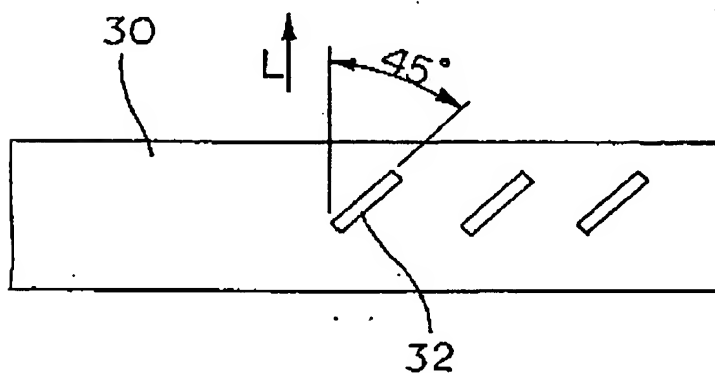


FIG. 9



*Deleted 2B
from Fig. 9*

Annotated Marked UP Drawing

*Changed F6M and
Raw Material Lines*

SUCTION BOX WITH DIAGONALLY SLOTTED PLATE
TENSILE STIFFNESS RELATIONSHIP LONGITUDINAL/TRANSVERSE
WITH AND WITHOUT VACUUM

SPEED: 800 m/min
MASS PER UNIT AREA OF THE FIBER WEB: 55 g/m²
RAW MATERIAL: UNBLEACHED KRAFTLINER PULP +
30% BROKE

● RL L/Q, SSPS WITH VACUUM
○ RL L/Q, SSPS WITHOUT VACUUM
△ RL L/Q, FOILBOX WITH VACUUM

RL=TEAR LENGTH
L/Q=LONGITUDINAL/TRANSVERSE
SSPS=SUCTION BOX WITH DIAGONALLY
SLOTTED PLATE

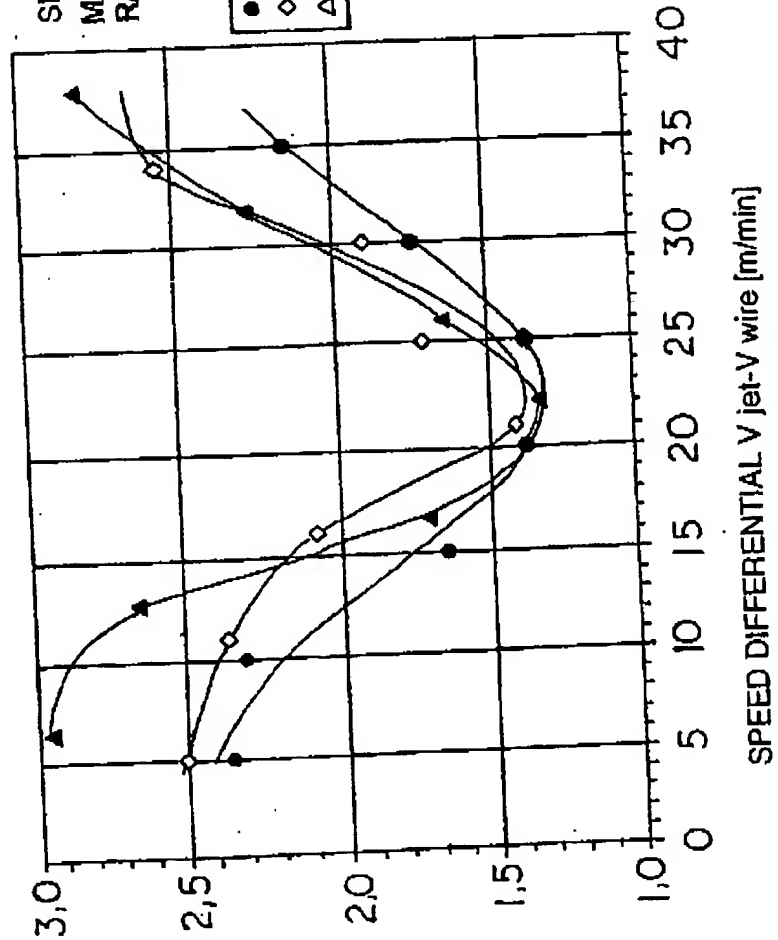


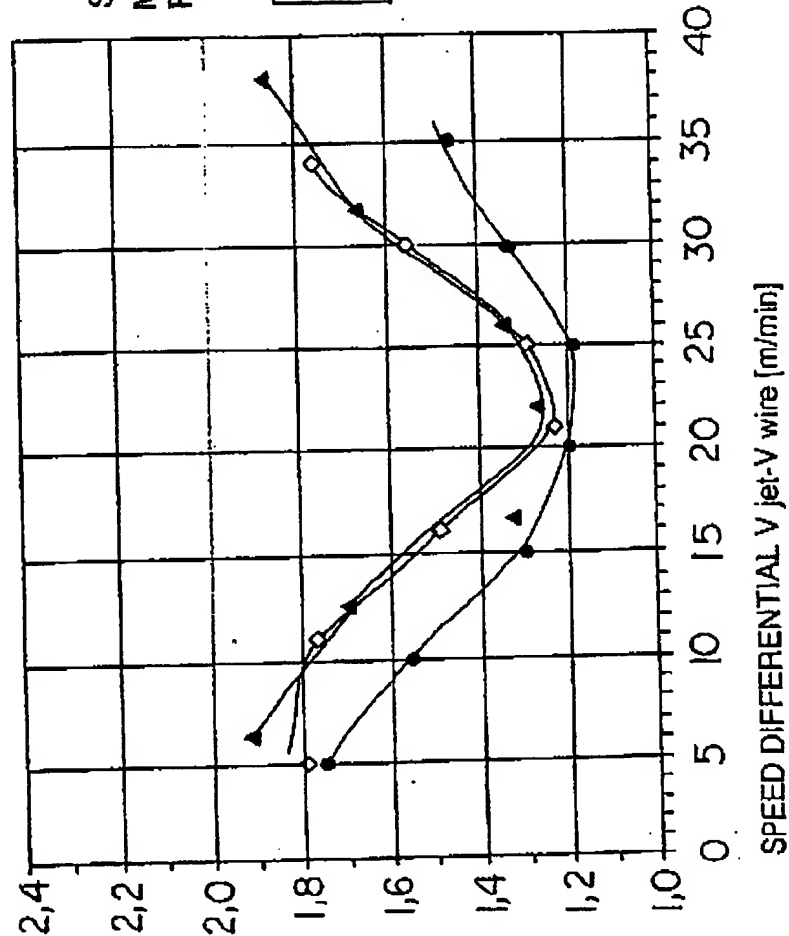
FIG.10

TEAR LENGTH RELATIONSHIP LONGITUDINAL/TRANSVERSE L/Q [-]

Annotated Marked-Up Drawing

SUCTION BOX WITH DIAGONALLY SLOTTED PLATE
TENSILE STIFFNESS RELATIONSHIP LONGITUDINAL/TRANSVERSE
WITH AND WITHOUT VACUUM

*Changed F6M and
raw material lines*



SPEED: 800 m/min

MASS PER UNIT AREA OF THE FIBER WEB: 55 g/m²
RAW MATERIAL: UNBLEACHED KRAFTLINER PULP +
30% BROKE

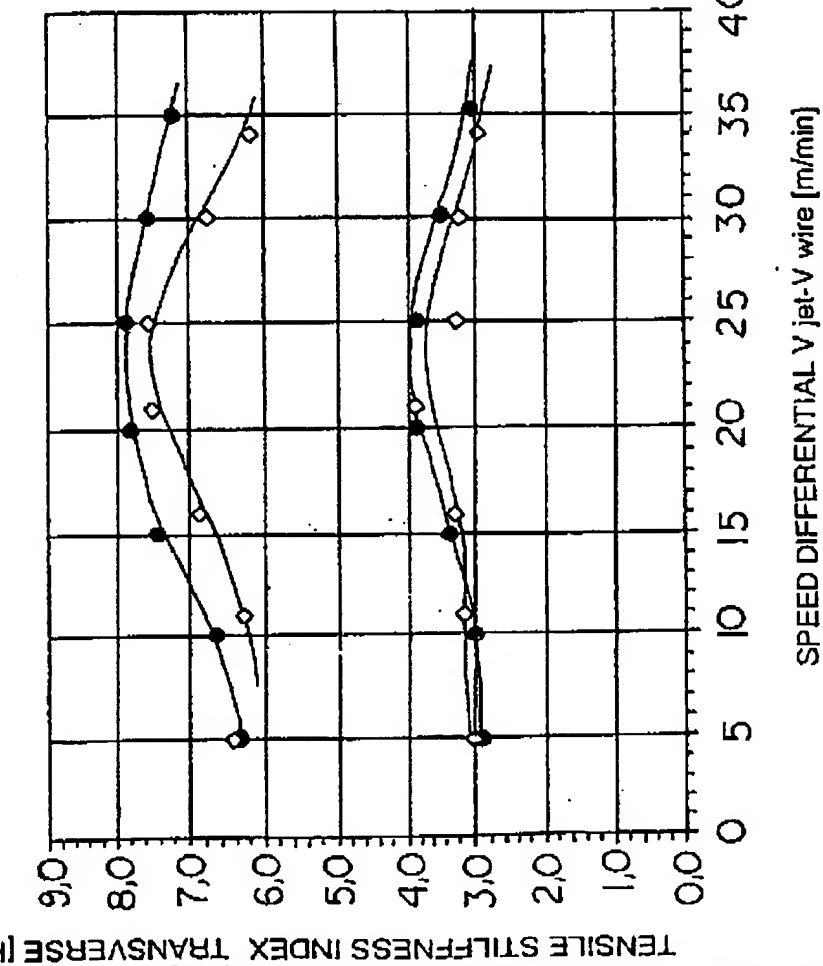
- TSI L/Q, SSPS WITH VACUUM
- ◊ TSI L/Q, SSPS WITHOUT VACUUM
- ▲ TSI L/Q, FOIL BOX WITH VACUUM

TSI=TENSILE STIFFNESS INDEX
L/Q=LONGITUDINAL/TRANSVERSE
SSPS=SUCTION BOX WITH DIAGONALLY
SLOTTED PLATE

FIG.11

SUCTION BOX WITH DIAGONALLY SLOTTED PLATE
TRANSVERSE STRENGTH WITH AND WITHOUT VACUUM ON THE
DIAGONALLY SLOTTED PLATE SUCTION BOX

*Changed F6M and
raw material lines*



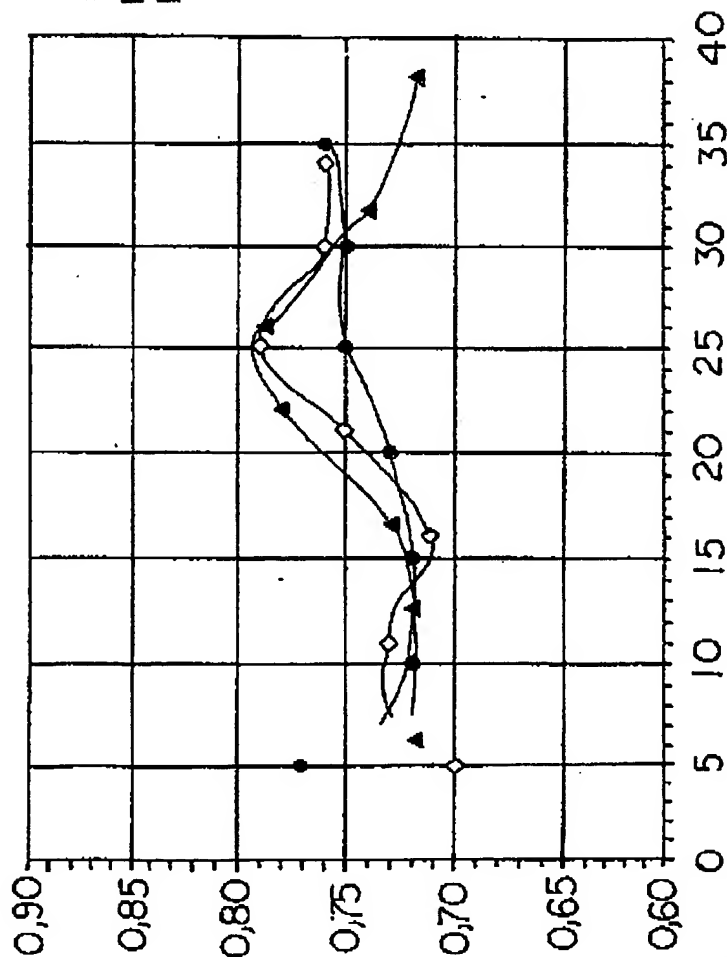
SPEED: 800 M/MIN.

MASS PER UNIT AREA OF THE FIBER WEB: 55 g/m²
RAW MATERIAL: UNBLEACHED KRAFTLINER PULP +
30% BROKE

Annotated Marked Up Drawing

FIG.12

SUCTION BOX WITH DIAGONALLY SLOTTED PLATE
FORMATION WITH AND WITHOUT VACUUM



SPEED DIFFERENTIAL V jet-V wire [m/min]

SPEED: 800 m/min
MASS PER UNIT AREA OF THE FIBER WEB: 55 g/m²
RAW MATERIAL: UNBLEACHED KRAFTLINER PULP +
30% BROKE

Annotated Marked-Up Drawing

- RL L/Q, SSPS WITH VACUUM
- ◇ RL L/Q, SSPS WITHOUT VACUUM
- ▲ RL L/Q, FOILBOX WITH VACUUM

RL=TEAR LENGTH
L/Q=LONGITUDINAL/TRANSVERSE
SSPS=SUCTION BOX WITH DIAGONALLY
SLOTTED PLATE

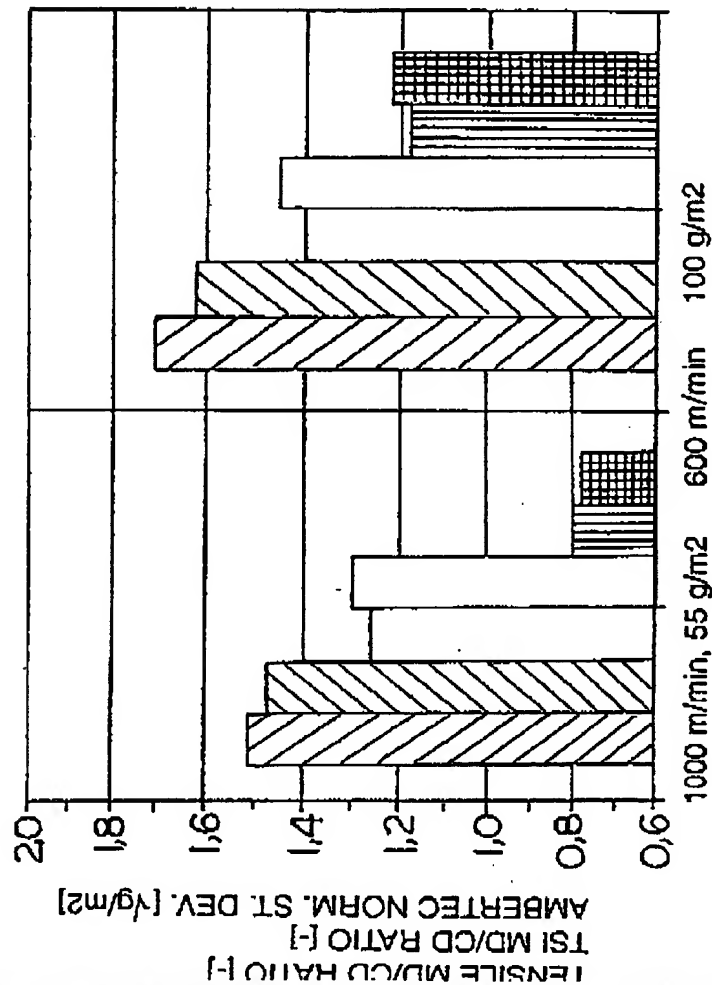
FIG.13

Annotated Marked-Up Drawing

SUCTION BOX WITH DIAGONALLY SLOTTED PLATE
TENSILE STIFFNESS ORIENTATION WITH AND WITHOUT VACUUM

*Changed FBW
and raw material
lines*

SPEED: 1000, 600 m/min
MASS PER UNIT AREA OF THE FIBER WEB: 55 g/m²
RAW MATERIAL: UNBLEACHED KRAFTLINER PULP +
30% BROKE



▨	RL L/Q, SSPS WITH VACUUM
▩	RL L/Q, SSPS WITHOUT VACUUM
□	TSI L/Q, SSPS WITH VACUUM
□	TSI L/Q, SSPS WITHOUT VACUUM
▤	AMBERTEC, SSPS WITH VACUUM
▥	AMBERTEC, SSPS WITHOUT VACUUM

RL=TEAR LENGTH
L/Q= LONGITUDINAL/TRANSVERSE
TSI=TENSILE STIFFNESS INDEX
SSPS=SUCTION BOX WITH DIAGONALLY
SLOTTED PLATE

SPEED DIFFERENTIAL V Jet-V wire [m/min]

FIG.14

SUCTION BOX WITH DIAGONALLY SLOTTED PLATE
TENSILE STIFFNESS INDEX WITH AND WITHOUT
VACUUM ON SUCTION BOX

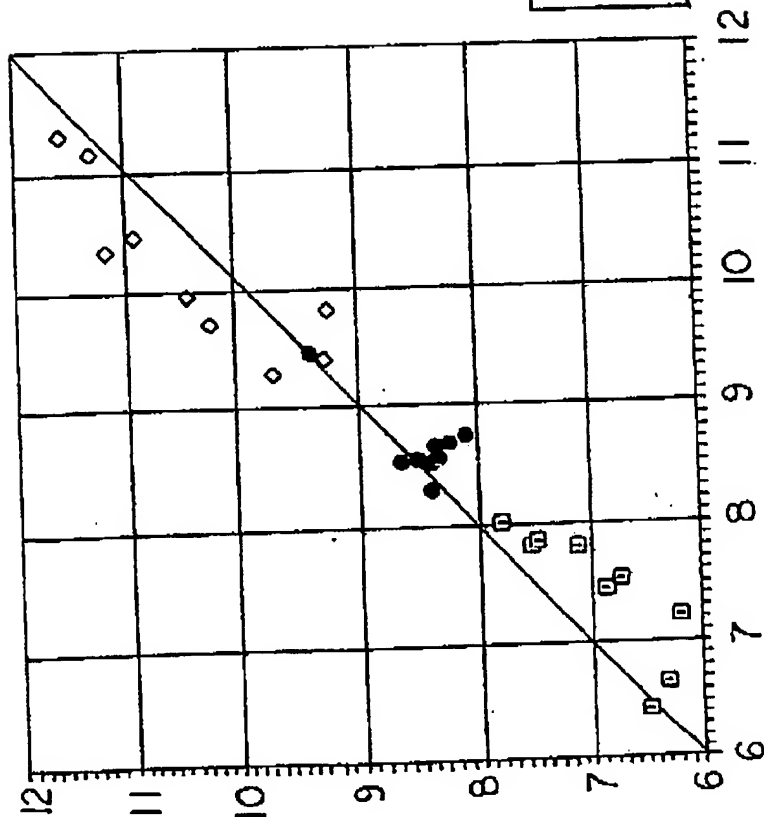


FIG.15

SUCTION BOX WITH DIAGONALLY SLOTTED PLATE WITH VACUUM

Annotated Marked-UP Drawing

Changed Flap and
raw material lines

SPEED: 800 m/min

MASS PER UNIT AREA OF THE FIBER WEB: 55 g/m²
RAW MATERIAL: UNBLEACHED KRAFTLINER PULP +
30% BROKE

Annotated Marked-Up Drawing

SUCTION BOX WITH DIAGONALLY SLOTTED PLATE
TEAR LENGTH WITH AND WITHOUT VACUUM AT THE SUCTION BOX
WITH DIAGONALLY SLOTTED PLATE

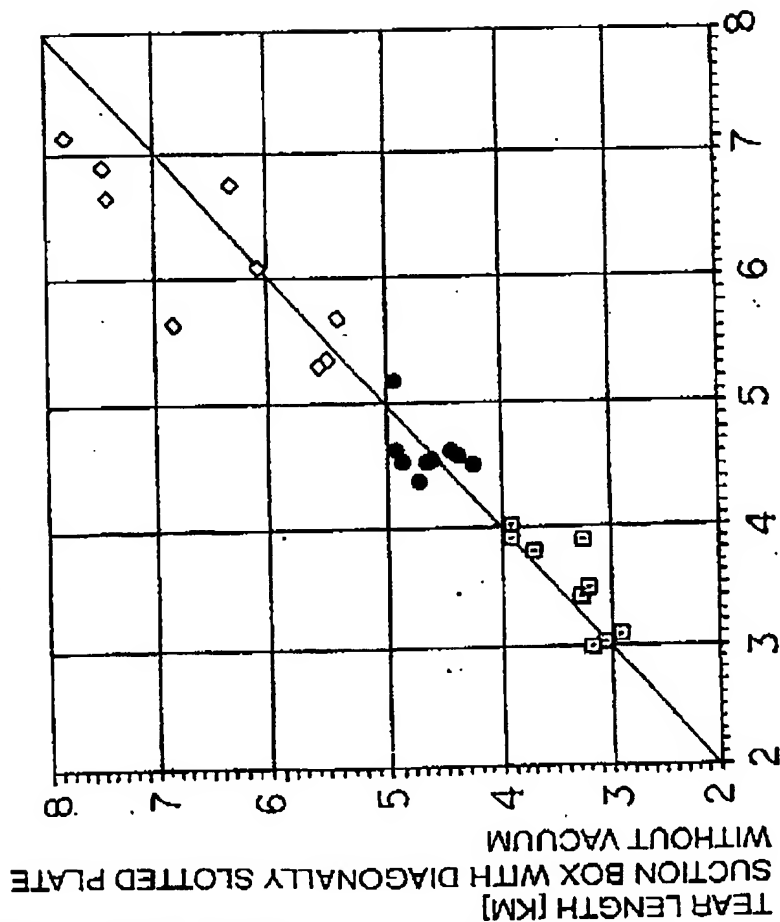


FIG. 16

Changed Fiber and
raw material lines

SPEED: 800 m/min
MASS PER UNIT AREA OF THE FIBER WEB: 55 g/m²
RAW MATERIAL: UNBLEACHED KRAFTLINER PULP +
30% BROKE